

NEON O&M Competition Webinar

Date: August 18

Start time: 2:10 EDT

We apologize for the late start

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Division of Biological Infrastructure NEON O&M Competition Webinar

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August 18, 2021

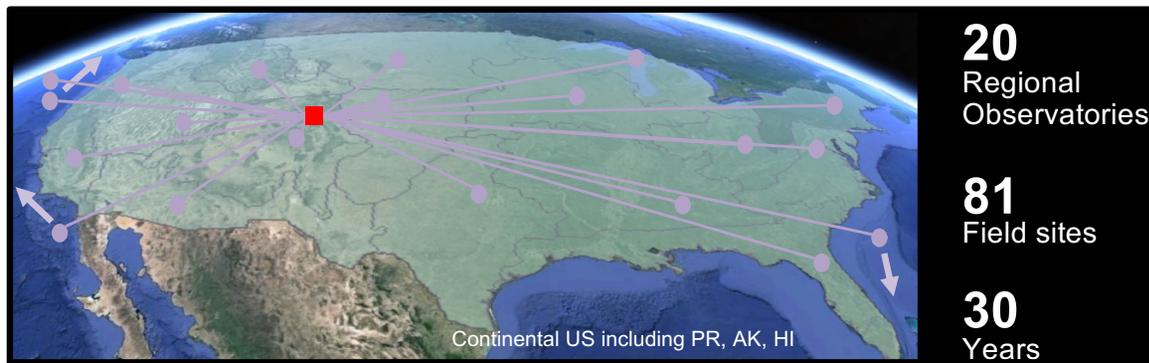


Overview

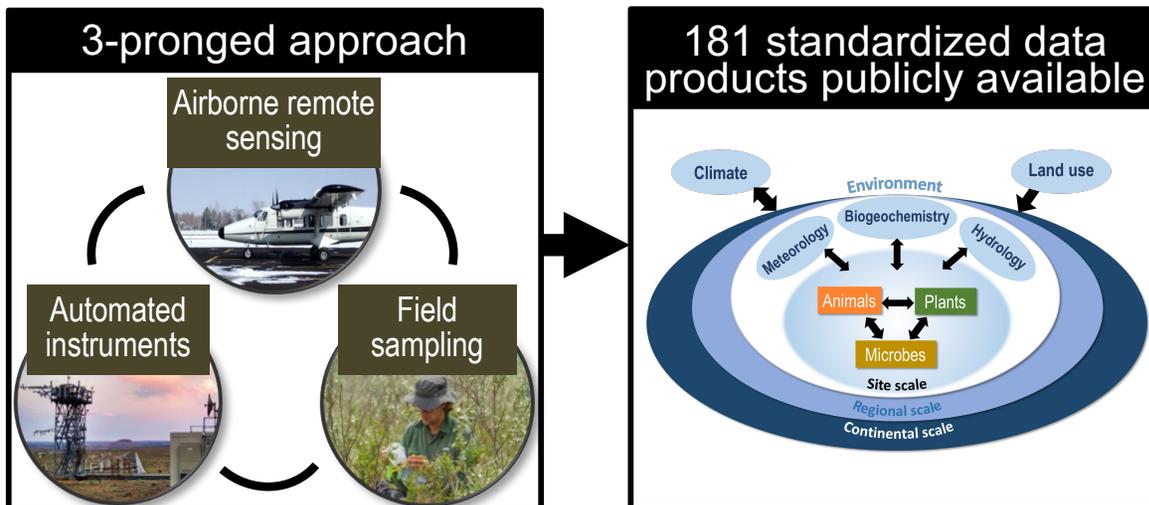
1. Project intent and design
2. NEON data themes and data products
3. NEON subsystems
4. Operational requirements
5. NEON solicitation revisions
6. NSF's oversight of Major Facilities
7. Questions



Intent of the National Ecological Observatory Network (NEON)



The world's first continental ecological observatory network to enable fundamental research to address scientific environmental grand challenges.



- Enable regional- to continental-scale research
- 30-year lifespan to explore decadal trends
- Enable individual and team science
- Democratize and standardize ecological research



NEON: Design



- Geographically distributed field and lab infrastructure
- Fully networked research/data collection platforms
- Internet accessible, data, computational, analytical, and modeling capabilities



NEON: Locations and Domains



The National Ecological Observatory Network is a major facility funded by the National Science Foundation and operated by Battelle. Any opinions, findings and conclusions or recommendations expressed in this material do not necessarily reflect the views of the National Science Foundation. © 2019.



NEON: Data themes and Data products

Five Data Themes

- Atmosphere
- Biogeochemistry
- Ecohydrology
- Land Cover and Processes
- Organisms, Populations and Communities

181 Data Products



NEON: Subsystems

(1) Terrestrial and Aquatic **Instrument** Systems (TIS & AIS)

Meteorology, Phenocams
Soil Sensors, Surface Water
Groundwater, Surface Air Exchange

(2) Terrestrial & Aquatic **Observation** Systems (TOS & AOS)

Aquatic Organisms, Terrestrial Organisms
Soils and Sediments, DNA Sequences
Biogeochemistry, Geomorphology
Pathogens

(3) **Airborne Observation Platform** (AOP)

Discrete and full-waveform lidar
Imaging spectrometer
High-resolution digital camera



Other Operational Components

(1) Biorepository

Invertebrates

Vertebrates

Plants

Environmental

Cryo storage (DNA)

(2) Assignable Assets

Airborne Observation Platform (AOP)

Mobile Deployment Platforms (MDP)

Access to sensor infrastructure

Access to observational sampling infrastructure



NEON: Operations

- **Resource management components**
 - **Cyberinfrastructure**
 - Architecture; Cybersecurity; etc.
 - **Data Management**
 - Data ingestion; QAQC; documentation; access
 - **Human resource management**
 - At peak, over 500 employees, permanent and seasonal
 - **Engagement and Outreach**
 - Science and technical; engagement; education and training, etc.



NEON Competition

- Rationale for competition
 - Normal NSF process for major facilities
- Competition timeline: key target dates
 - Solicitation (**NSF 21-603**): July 28, 2021, release
 - Letter of intent: October 1, 2021*
 - Full proposals: January 31, 2022*
 - Potential award start date, anticipated late 2023

* Information provided in the Solicitation (NSF 21-603)



Solicitation Revisions (NSF 21-603)

- New LOI deadline;
- New full proposals deadline;
- Revised funding amounts;
- Revised award start date;
- Updated description of the informational site visits;
- Clarified instructions about what should be included in the Facilities, Equipment and Other Resources section of the proposal; and
- Updated references to key documents.



NSF's Oversight of Large Facilities

- Award oversight mechanism: Cooperative Agreement (CA)
- Unique attributes of CAs
 - Substantial involvement and interaction between NSF and the Awardee in carrying out the activities contemplated in the award.
 - CAs are living documents that are agreed upon and amended by NSF and Awardee.



Summary

- Enabling predictive, regional- to continental-scale research
- Complex distributed infrastructure; complex subsystems, large number of employees and other numerous requirements
- Competition key dates
- Key solicitation revisions
- NSF's Oversight of NEON



QUESTIONS?

- This Webinar will be posted as presented for on-demand viewing:
 - Recorded Webinar –
 - Event webpage
 - NSF NEON Program Page
- Email questions to the cognizant NEON Program Director:
- Roland P. Roberts
 - neon-bot@nsf.gov

